

## EAST Search History

## EAST Search History (Prior Art)

| Ref # | Hits | Search Query   | DBs   | Default Operator | Plurals | Time Stamp          |
|-------|------|--|---|------------------|---------|---------------------|
| S1    | 3    | takumai.in. and \$4speaker and (region\$1 row\$1) and array  | US-<br>PGPUB;<br>USPAT;<br>USOCR;<br>FPRS;<br>EPO;<br>JPO | OR               | OFF     | 2008/08/20<br>11:30 |
| S3    | 1    | takumai.in. and (\$4speaker and (region\$1 row\$1) and array) and (pass\$4 near5 frequency near5 band)               | US-<br>PGPUB;<br>USPAT;<br>USOCR;<br>FPRS;<br>EPO;<br>JPO | OR               | OFF     | 2008/08/20<br>13:51 |
| S4    | 62   | yamaha.AS. and \$4speaker and (region\$1 row\$1) and array   | US-<br>PGPUB;<br>USPAT;<br>USOCR;<br>FPRS;<br>EPO;<br>JPO | OR               | OFF     | 2008/08/20<br>13:51 |
| S6    | 4    | ((("7113602") or ("7003124") or ("5146507") or ("5789689")).PN.  | USPAT   | OR               | OFF     | 2008/08/20<br>15:08 |
| S7    | 9    | yamaha.AS. and \$4speaker and (region\$1 row\$1) and array and (opposite near5 end)                                  | US-<br>PGPUB;<br>USPAT;<br>USOCR;<br>FPRS;<br>EPO;<br>JPO | OR               | OFF     | 2008/08/20<br>15:14 |
| S8    | 3    | yamaha.AS. and \$4speaker and (region\$1 row\$1) and array and (small\$3 near5 region\$1)                            | US-<br>PGPUB;<br>USPAT;<br>USOCR;<br>FPRS;<br>EPO;<br>JPO | OR               | OFF     | 2008/08/20<br>15:17 |
| S9    | 3081 | (381/1,17,92,111,122).CQLS.  | US-<br>PGPUB;<br>USPAT;<br>USOCR;<br>FPRS;<br>EPO;<br>JPO | OR               | OFF     | 2008/08/20<br>15:22 |
| S10   | 317  | "381"/\$.cqls. and direct\$4 and ((high near3 pass) treble) and ((low near5 pass) bass) and (mid\$3 near3 frequency) | US-<br>PGPUB;<br>USPAT;<br>USOCR;<br>FPRS;<br>EPO;        | OR               | OFF     | 2008/08/20<br>15:24 |

|     |     |   |   |    |     |                     |
|-----|-----|---|---|----|-----|---------------------|
|     |     |   | JPO   |    |     |                     |
| S11 | 239 | "381"/\$.ccls. and direct\$4 and ((high near3 pass) treble) and ((low near5 pass) bass) and (mid\$3 near3 frequency) and \$4speakers                              | US-<br>PGRUB;<br>USPAT;<br>USOCR;<br>FPRS;<br>EPO;<br>JPO | OR | OFF | 2008/08/20<br>15:25 |
| S12 | 625 | (381/18,335).CCLS.  | US-<br>PGRUB;<br>USPAT;<br>USOCR;<br>FPRS;<br>EPO;<br>JPO | OR | OFF | 2008/08/20<br>15:43 |
| S13 | 50  | "381"/\$.ccls. and direct\$4 and ((high near3 pass) treble) and ((low near5 pass) bass) and (mid\$3 near3 frequency) and ((transducer \$4speaker\$1) near5 array) | US-<br>PGRUB;<br>USPAT;<br>USOCR;<br>FPRS;<br>EPO;<br>JPO | OR | OFF | 2008/08/20<br>15:56 |
| S14 | 24  | ("4468530").URPN.   | USPAT   | OR | OFF | 2008/08/20<br>16:06 |
| S15 | 201 | (381/27).CCLS.  | US-<br>PGRUB;<br>USPAT;<br>USOCR;<br>FPRS;<br>EPO;<br>JPO | OR | OFF | 2008/08/20<br>19:02 |
| S16 | 169 | "381"/\$.ccls. and direct\$4 and ((high near3 pass) treble) and ((transducer \$4speaker\$1) near5 array)  | US-<br>PGRUB;<br>USPAT;<br>USOCR;<br>FPRS;<br>EPO;<br>JPO | OR | OFF | 2008/08/20<br>19:08 |
| S17 | 11  | "381"/\$.ccls. and ((transducer \$4speaker\$1) near5 array) near20 stereo near20 surround   | US-<br>PGRUB;<br>USPAT;<br>USOCR;<br>FPRS;<br>EPO;<br>JPO | OR | OFF | 2008/08/22<br>09:51 |
| S18 | 6   | "381"/\$.ccls. and ((transducer \$4speaker\$1) near5 array) and (stereo near20 surround near20 filter\$3)   | US-<br>PGRUB;<br>USPAT;<br>USOCR;<br>FPRS;<br>EPO;<br>JPO | OR | OFF | 2008/08/22<br>09:53 |
| S19 | 36  | "381"/\$.ccls. and (transducer\$1 \$4speaker\$1) and (stereo near20 surround near20 filter\$3)  | US-<br>PGRUB;<br>USPAT;<br>USOCR;<br>FPRS;<br>EPO;<br>JPO | OR | OFF | 2008/08/22<br>09:54 |
| S20 | 5   | "381"/\$.ccls. and (transducer\$1   | US-   | OR | OFF | 2008/08/22          |

|     |      |   |   |    |     |                     |
|-----|------|---|---|----|-----|---------------------|
|     |      | "\$4speaker\$1) and (stereo near20 surround near20 filter\$3 near20 cent\$3)                              | US-<br>PGPUB;<br>USPAT;<br>USOCR;<br>FPRS;<br>EPO;<br>JPO |    |     | 09:54               |
| S21 | 95   | "381"/\$.ccls. and (transducer\$1 \$4speaker\$1) and ((stereo surround) near20 filter\$3 near20 cent\$3)  | US-<br>PGPUB;<br>USPAT;<br>USOCR;<br>FPRS;<br>EPO;<br>JPO | OR | OFF | 2008/08/22<br>09:57 |
| S22 | 1    | "381"/\$.ccls. and ((frequency near3 band) near10 increas\$3 near10 opposite near10 cent\$3 near10 array) | US-<br>PGPUB;<br>USPAT;<br>USOCR;<br>FPRS;<br>EPO;<br>JPO | OR | OFF | 2008/08/22<br>10:01 |
| S23 | 23   | "381"/\$.ccls. and (frequency near10 (middle center) near10 (\$4speaker\$1 transducer\$1) near10 array)   | US-<br>PGPUB;<br>USPAT;<br>USOCR;<br>FPRS;<br>EPO;<br>JPO | OR | OFF | 2008/08/22<br>10:07 |
| S24 | 5    | ("4747142").URPN.   | USPAT   | OR | OFF | 2008/08/22<br>10:21 |
| S25 | 1    | ("5953432").URPN.   | USPAT   | OR | OFF | 2008/08/22<br>10:21 |
| S26 | 3245 | (381/1,17,92,111,122).CCLS.   | US-<br>PGPUB;<br>USPAT;<br>USOCR;<br>FPRS;<br>EPO;<br>JPO | OR | OFF | 2009/03/20<br>14:25 |
| S27 | 646  | (381/18,335).CCLS.  | US-<br>PGPUB;<br>USPAT;<br>USOCR;<br>FPRS;<br>EPO;<br>JPO | OR | OFF | 2009/03/20<br>14:25 |
| S28 | 209  | (381/27).CCLS.  | US-<br>PGPUB;<br>USPAT;<br>USOCR;<br>FPRS;<br>EPO;<br>JPO | OR | OFF | 2009/03/20<br>14:25 |
| S29 | 3    | takumai.in. and \$4speaker and (region\$1 row\$1) and array   | US-<br>PGPUB;<br>USPAT;<br>USOCR;<br>FPRS;<br>EPO;<br>JPO | OR | OFF | 2009/03/20<br>14:25 |
| S30 | 6    | konagai.in. and \$4speaker and (region\$1   | US-   | OR | OFF | 2009/03/20          |

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|-----|------|---|---|----|-----|---------------------|
|     |      | row\$1) and array   | US-<br>PGRUB;<br>USPAT;<br>USOCR;<br>FPRS;<br>EPO;<br>JPO |    |     | 14:27               |
| S32 | 1878 | (381/77,95-97,89,80).OCLS.  | US-<br>PGRUB;<br>USPAT;<br>USOCR;<br>FPRS;<br>EPO;<br>JPO | OR | OFF | 2009/03/20<br>14:40 |
| S33 | 0    | takumai.in. and \$4speaker and (region\$1<br>row\$1) and array and (center near5<br>channel near5 direction\$1) | US-<br>PGRUB;<br>USPAT;<br>USOCR;<br>FPRS;<br>EPO;<br>JPO | OR | OFF | 2009/03/28<br>15:42 |
| S34 | 0    | takumai.in. and \$4speaker and (region\$1<br>row\$1) and array and (center near5<br>direction\$1)               | US-<br>PGRUB;<br>USPAT;<br>USOCR;<br>FPRS;<br>EPO;<br>JPO | OR | OFF | 2009/03/28<br>15:42 |
| S35 | 1    | takumai.in. and \$4speaker and (region\$1<br>row\$1) and array and direction\$1                                 | US-<br>PGRUB;<br>USPAT;<br>USOCR;<br>FPRS;<br>EPO;<br>JPO | OR | OFF | 2009/03/28<br>15:42 |
| S36 | 0    | takumai.in. and \$4speaker and (region\$1<br>row\$1) and array and (center near5 non-<br>direction\$1)          | US-<br>PGRUB;<br>USPAT;<br>USOCR;<br>FPRS;<br>EPO;<br>JPO | OR | OFF | 2009/03/28<br>15:43 |
| S37 | 0    | takumai.in. and \$4speaker and (region\$1<br>row\$1) and array and (non-direction\$1)                           | US-<br>PGRUB;<br>USPAT;<br>USOCR;<br>FPRS;<br>EPO;<br>JPO | OR | OFF | 2009/03/28<br>15:43 |
| S38 | 3367 | (381/1,17,92,111,122).OCLS.   | US-<br>PGRUB;<br>USPAT;<br>USOCR;<br>FPRS;<br>EPO;<br>JPO | OR | OFF | 2009/09/13<br>17:40 |
| S39 | 659  | (381/18,335).OCLS.  | US-<br>PGRUB;<br>USPAT;<br>USOCR;<br>FPRS;<br>EPO;        | OR | OFF | 2009/09/13<br>17:40 |

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| S40 | 214  | (381/27).OCLS.  | US-<br>PGRUB;<br>USPAT;<br>USOCR;<br>FPRS;<br>EPO;<br>JPO | OR | OFF | 2009/09/13<br>17:40 |
| S41 | 1928 | (381/77,95-97,89,80).OCLS.  | US-<br>PGRUB;<br>USPAT;<br>USOCR;<br>FPRS;<br>EPO;<br>JPO | OR | OFF | 2009/09/13<br>17:40 |
| S42 | 1    | "381"/\$.cls. and frequency near10 band<br>near10 \$4speaker\$1 near10 opposite<br>near10 (center central) near10 array   | US-<br>PGRUB;<br>USPAT;<br>USOCR;<br>FPRS;<br>EPO;<br>JPO | OR | OFF | 2010/04/22<br>10:14 |
| S43 | 0    | "381"/\$.cls. and (frequency near10 band<br>near10 \$4speaker\$1 near10 opposite<br>near10 (center central) near10 array) and<br>decrease   | US-<br>PGRUB;<br>USPAT;<br>USOCR;<br>FPRS;<br>EPO;<br>JPO | OR | OFF | 2010/04/22<br>10:16 |
| S44 | 0    | "381"/\$.cls. and (frequency near10 band<br>near10 \$4speaker\$1 near10 opposite<br>near10 (center central) near10 array) and<br>decreas\$3   | US-<br>PGRUB;<br>USPAT;<br>USOCR;<br>FPRS;<br>EPO;<br>JPO | OR | OFF | 2010/04/22<br>10:17 |
| S45 | 1    | "381"/\$.cls. and (frequency near10 band<br>near10 \$4speaker\$1 near10 opposite<br>near10 (center central) near10 array) and<br>decrease   | US-<br>PGRUB;<br>USPAT;<br>USOCR;<br>FPRS;<br>EPO;<br>JPO | OR | OFF | 2010/04/22<br>10:17 |
| S46 | 0    | "381"/\$.cls. and (high\$2 near10<br>frequency near10 band near10 (allocat\$3<br>assign\$3 reallocat\$3 allot\$3 portion\$3)<br>near10 (small\$3 decreas\$3) near10<br>number near10 \$4speakers) | US-<br>PGRUB;<br>USPAT;<br>USOCR;<br>FPRS;<br>EPO;<br>JPO | OR | OFF | 2010/04/22<br>12:38 |
| S47 | 3520 | (381/1,17,92,111,122).OCLS.   | US-<br>PGRUB;<br>USPAT;<br>USOCR;<br>FPRS;<br>EPO;<br>JPO | OR | OFF | 2010/04/25<br>15:05 |
| S48 | 1982 | (381/77,95-97,89,80).OCLS.  | US-<br>PGRUB;<br>USPAT;<br>USOCR;                         | OR | OFF | 2010/04/25<br>15:05 |

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|     |         |   | FPRS;<br>EPO;<br>JPO                                      |    |     |                     |
| S49 | 867     | (381/18,335,27).CQLS.   | US-<br>PGRUB;<br>USPAT;<br>USOCR;<br>FPRS;<br>EPO;<br>JPO | OR | OFF | 2010/04/25<br>15:05 |
| S53 | 45      | ((("20010016047") or ("20020191807") or ("20030185404") or ("20040071299") or ("20040151325") or ("20040193050") or ("20040252844") or ("20050089182") or ("20050271230") or ("20060050897") or ("20060153391") or ("20060204022") or ("20060233378") or ("20070076905") or ("20070165878") or ("20070217621") or ("20080159545") or ("20080226093") or ("20090060237") or ("3772479") or ("4024344") or ("4118601") or ("4472834") or ("4503553") or ("4984273") or ("4991687") or ("5109419") or ("5524054") or ("5631714") or ("5666424") or ("5675655") or ("5930373") or ("5953432") or ("6005948") or ("6128395") or ("6181796") or ("6240189") or ("6285891") or ("6498852") or ("6535610") or ("7054448") or ("7319641") or ("7515719") or ("7822496") or ("4227160"))).PN. | US-<br>PGRUB;<br>USPAT;<br>USOCR                          | OR | OFF | 2011/09/21<br>14:17 |
| S54 | 1       | ("5930370").PN.   | USPAT;<br>USOCR   | OR | OFF | 2011/09/22<br>11:42 |
| S55 | 6       | takumai.in. and \$4speaker and (region\$1 row\$1) and array   | US-<br>PGRUB;<br>USPAT;<br>USOCR;<br>FPRS;<br>EPO;<br>JPO | OR | OFF | 2011/09/26<br>14:41 |
| S56 | 14      | yamaha.AS. and \$4speaker and (region\$1 row\$1) and array and (opposite near5 end)   | US-<br>PGRUB;<br>USPAT;<br>USOCR;<br>FPRS;<br>EPO;<br>JPO | OR | OFF | 2011/09/26<br>14:42 |
| S57 | 9702863 | b   | US-<br>PGRUB;<br>USPAT;<br>USOCR;<br>FPRS;<br>EPO;<br>JPO | OR | OFF | 2011/09/26<br>14:42 |
| S58 | 2       | (10/585654).APP.  | US-<br>PGRUB;<br>USPAT;<br>USOCR                          | OR | OFF | 2011/09/26<br>14:44 |

## EAST Search History (Interference)

| Ref # | Hits | Search Query  | DBs                   | Default Operator | Plurals | Time Stamp       |
|-------|------|---|-----------------------|------------------|---------|------------------|
| L1    | 5575 | (381/1,17,92,111,122,77,95-97,89,80,18,335,27).CQLS.  | US-PGPUB; USPAT; UPAD | OR               | OFF     | 2012/01/27 15:53 |
| L2    | 0    | L1 and (high\$2 near10 frequency near10 band near10 (allocat\$3 assign\$3 reallocate\$3 allot\$3 portion\$3) near10 (small\$3 decrease\$3) near10 number near10 \$4speakers)  | US-PGPUB; USPAT; UPAD | OR               | OFF     | 2012/01/27 15:53 |
| L3    | 1    | L1 and (frequency near10 band near10 \$4speaker\$1 near10 opposite near10 (center central) near10 array) and decrease   | US-PGPUB; USPAT; UPAD | OR               | OFF     | 2012/01/27 15:54 |
| S50   | 2673 | (381/1,17,92,111,122).CQLS.   | US-PGPUB; USPAT; UPAD | OR               | OFF     | 2010/09/30 17:23 |
| S51   | 4838 | (381/1,17,92,111,122,77,95-97,89,80,18,335,27).CQLS.  | US-PGPUB; USPAT; UPAD | OR               | OFF     | 2010/09/30 17:24 |
| S52   | 1    | S51 and (frequency near10 band near10 \$4speaker\$1 near10 opposite near10 (center central) near10 array) and decrease  | US-PGPUB; USPAT; UPAD | OR               | OFF     | 2010/09/30 17:24 |
| S59   | 5333 | (381/1,17,92,111,122,77,95-97,89,80,18,335,27).CQLS.  | US-PGPUB; USPAT; UPAD | OR               | OFF     | 2011/09/28 14:44 |
| S60   | 1    | S59 and (frequency near10 band near10 \$4speaker\$1 near10 opposite near10 (center central) near10 array) and decrease  | US-PGPUB; USPAT; UPAD | OR               | OFF     | 2011/09/28 14:44 |
| S61   | 1    | S59 and (frequency near10 band near10 \$4speaker\$1 near10 opposite near10 (center central) near10 array) and decrease\$3   | US-PGPUB; USPAT; UPAD | OR               | OFF     | 2011/09/28 14:44 |
| S62   | 0    | S59 and (high\$2 near10 frequency near10 band near10 (allocat\$3 assign\$3 reallocate\$3 allot\$3 portion\$3) near10 (small\$3 decrease\$3) near10 number near10 \$4speakers) | US-PGPUB; USPAT; UPAD | OR               | OFF     | 2011/09/28 14:44 |
| S63   | 5650 | (381/1,17,92,111,122,77,95-97,89,80,18,335,27,19,300).CQLS.   | US-PGPUB; USPAT; UPAD | OR               | OFF     | 2011/09/28 14:53 |
| S64   | 1    | S63 and (frequency near10 band near10 \$4speaker\$1 near10 opposite near10 (center central) near10 array) and decrease  | US-PGPUB; USPAT; UPAD | OR               | OFF     | 2011/09/28 14:53 |
| S65   | 1    | S63 and (frequency near10 band near10 \$4speaker\$1 near10 opposite near10 (center central) near10 array) and decrease\$3   | US-PGPUB; USPAT; UPAD | OR               | OFF     | 2011/09/28 14:54 |
| S66   | 0    | S63 and (high\$2 near10 frequency near10 band near10 (allocat\$3 assign\$3 reallocate\$3 allot\$3 portion\$3) near10 (small\$3 decrease\$3)                                   | US-PGPUB; USPAT;      | OR               | OFF     | 2011/09/28 14:54 |

|  |  |                                   |      |  |  |  |
|--|--|-----------------------------------|------|--|--|--|
|  |  | near10 number near10 \$4speakers) | UPAD |  |  |  |
|--|--|-----------------------------------|------|--|--|--|

**1/ 27/ 2012 3:59:55 PM**

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